

## AMPHIBIA: CAUDATA: PLETHODONTIDAE

## PLETHODON NETTINGI

## Catalogue of American Amphibians and Reptiles.

HIGHTON, RICHARD. 1986. *Plethodon nettingi*.

***Plethodon nettingi* Green  
Cheat Mountain salamander**

*Plethodon nettingi* Green, 1938:295. Type-locality, "above 4000 feet on Barton Knob, near Cheat Bridge, West Virginia" in Randolph County. Holotype, Carnegie Museum (CM) 10279, an adult male, collected on 29 June 1935 by M. Graham Netting (examined by author).

*Plethodon richmondi nettingi*: Highton and Grobman, 1956:187.  
*Plethodon nettingi nettingi*: Thurow, 1968:36.

• CONTENT. No subspecies are recognized.

• DEFINITION. *Plethodon nettingi* is a member of the *P. cinereus* group of eastern *Plethodon* as defined morphologically by Highton (1962) and biochemically by Highton and Larson (1979). The modal number of trunk vertebrae is 19. Adults range from 40–53 mm (body) and 80–111 mm (total) length. The dorsum is dark brown with brassy flecking and larger, less common, small white spots. There are larger white spots on the sides. The belly is dark gray with a few small white spots. The white spots are more abundant on the chin. There is no striped morph except for red dorsal pigmentation in hatchlings (Highton, 1962).

• DESCRIPTIONS. Green (1938) described the type series. Bishop (1943), Brooks (1948), Grobman (1949), Highton and Grobman (1956), Thurow (1955, 1957, 1968), Highton (1962), Conant (1975), Smith (1978) and Behler and King (1979) provided descriptions and comparisons with other eastern small *Plethodon*.

• ILLUSTRATIONS. Bishop (1943) provided a black and white photograph of both dorsal and ventral views. Colored illustrations

are in Conant (1975), Smith (1978) and Behler and King (1979). A scanning electron microscopic photograph of premaxillary teeth is in Coss (1974).

• DISTRIBUTION. *Plethodon nettingi* is known only from the Cheat Mountains of eastern West Virginia.

• FOSSIL RECORD. None.

• PERTINENT LITERATURE. Vertebral variation is given in Highton and Grobman (1956) and Highton (1962). The distribution of the species was studied by Pauley (1981) and distributional interactions with other species were reported by Grobman (1944), Highton (1972) and Pauley (1980a). The relationships of *P. nettingi* were discussed by Green (1938), Grobman (1944), Highton (1962, 1972) and Thurow (1968). Highton and Larson (1979) compared electrophoretic variation in 29 proteins with that in all 25 other species of *Plethodon* recognized at that time. Its albumin was compared immunologically to several other species of *Plethodon* in Maxson et al. (1979) and Maxson et al. (1984). DNA sequence homologies to cRNA of *P. cinereus* were studied using DNA/cRNA hybridization techniques by Macgregor et al. (1973). Chromosomal morphology, genome size and DNA sequence homologies to eastern and western species of *Plethodon* were studied by Mizuno and Macgregor (1974). Larson (1984) reviewed patterns of evolution in the salamander family Plethodontidae and made a number of comparisons of *P. nettingi* to other species. He also estimated the time of divergence between *P. nettingi* and *P. cinereus* based on a time-calibration of protein divergence. Coss (1974) did a comparative scanning electron microscopic study of maxillary and premaxillary dentition. Dodd and Brodie (1976) described the shape of the male mental gland and compared it to other species of the genus.

Bury et al. (1980) discussed the species' conservation. Pauley (1980b) discussed its ecological status. Tree composition of habitats was studied by Clovis (1979). Developing embryos with associated females have been reported by Green (1938) and Brooks (1948). Brooks (1945, 1948) discussed its habits, abundance and geographic and ecological distribution in spruce forests at higher elevations in the Cheat Mountains. Thurow (1976) studied aggressive behavior.

• ETYMOLOGY. *P. nettingi* is a patronym honoring Dr. M. Graham Netting, long the director of the Carnegie Museum in Pittsburgh, Pennsylvania.

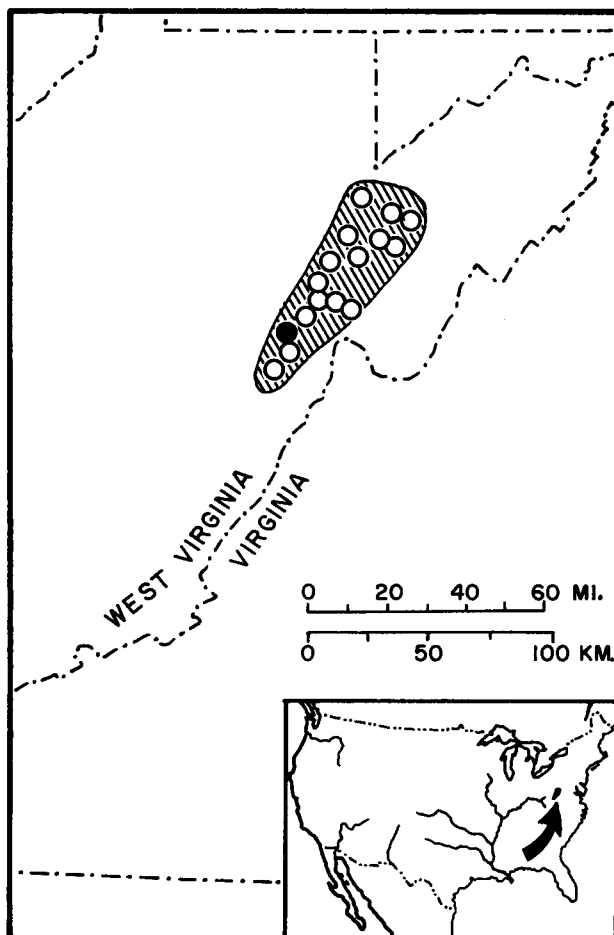
## COMMENT

*Plethodon nettingi* was originally described as a full species. Highton and Grobman (1956) recognized it as a subspecies of *P. richmondi* because of overlap in variation in the only character that distinguished the two forms, the number of trunk vertebrae. Thurow (1957, 1968) and Highton (1972) again recognized it as a full species. *P. hubrichti* and *P. shenandoah* were for a time recognized as subspecies of *P. nettingi* (Thurow, 1968; Highton, 1972), but they are now both regarded as different species (Highton and Larson, 1979).

I thank the National Science Foundation for financial support of my research on *P. nettingi* (Grant DEB-81-17983).

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MAP. The solid circle shows the type-locality. Open circles indicate other records.

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RICHARD HIGHTON, UNIVERSITY OF MARYLAND, COLLEGE PARK, MARYLAND 20742.

Primary editor for this account, Stephen G. Tilley.

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